

# COMMONWEALTH OF VIRGINIA



## Virginia Enterprise Applications Program

### FM07 Cost Accounting

#### **Modified Financial Management (FM) and Performance Budgeting (PB) Future State Business Process Best Practice Environment Definition Document**

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V3.2

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## 1. Introduction

This Deliverable documents the collection, analysis, and definition of the high level business process functions and functional requirements of the *Financial Management – Cost Accounting* business area within the Virginia Enterprise Application Program (VEAP). This Deliverable focuses on the business processes and functional requirements identified by the VEAP to satisfy the needs of the Commonwealth's stakeholders and the target users. This document includes the purpose, scope, business reengineering opportunities, process threads, requirements, definitions, and references of this future state environment definition. The Future State Environment Definition Documents provide a critical foundation for the Financial Management and Performance Budgeting solutions as they are the basis for the fit-gap analysis as well as implementation activities including software design and configuration, testing, procedures documentation, training, business process reengineering, and organization design.

### 1.1 VEAP Background

#### ***The Virginia Enterprise Applications Program (VEAP) Vision***

- ***Provide the Commonwealth with best practice business processes supported by a suite of commercial-off-the-shelf (COTS) enterprise solutions – consistent with Virginia's position as a Best Managed state and a financial and technology leader.***
- ***Transform administrative operations by consolidating and modernizing the service delivery models and supporting applications for the Commonwealth's Financial Management, Human Resources Management, Administrative Management, and Supply Chain Management resulting in superior resource management and improved performance.***

Through the Commonwealth's Public Private Educational Facilities and Infrastructure Act (PPEA) of 2002, which brings private sector innovation and investment to state government projects, the Commonwealth has undertaken an initiative to identify areas of the Commonwealth's operations that could be significantly improved by undertaking an enterprise-wide reengineering and resolutioning of business processes common across the Executive Branch of government. The Virginia Enterprise Application Program (VEAP) is one such effort, as part of the initiative, undertaken by the Commonwealth.

The VEAP is a seven year program to consolidate and modernize the business processes and enterprise applications of the Commonwealth of Virginia (COVA). The initiative will enhance efficiency, increase productivity, and provide more effective delivery of services. The Program's scope includes Financial Management; Human Resources Management; Administrative Management; and Supply Chain Management. It is important to remember that VEAP is not just a project to replace old systems with newer technology. The Program also is intended to focus on opportunities to reengineer business practices and to achieve efficiencies whenever possible.

The implementation will be accomplished over a multi-year period and will be managed through phased rollouts. Phase I of the VEAP will result in an integrated, fully-functional Financial Management and Performance Budgeting solution and related business processes. The targeted implementation dates are June 2008 for Performance Budgeting and June 2009 for Financial Management.

Many Commonwealth agencies conduct their business processes - such as accounting, payroll, budgeting, personnel management, and travel - through repetitive systems, leading to inefficiencies, excessive manual input, and

duplication. For example, only eleven percent (11%) of financial transactions made by COVA agencies originate in the Commonwealth's central accounting system, with many agencies using systems that they have acquired or developed in-house over time to suit their specific needs. This has led to fractured processes, multiple systems, time-consuming reconciliation of data, and reduced central oversight. Many of these systems are old, obsolete, and inflexible and have too few staff in both the public and private sectors with the know-how to operate and service them. This limited knowledge base presents a risk to the Commonwealth's administrative operations.

## 1.2 VEAP Phase I Scope

During Phase I, the Commonwealth Accounting and Reporting System (CARS) and the budget development (PROBUD) system will be replaced and a new statewide Chart of Accounts will be implemented.

The agencies that will be affected by the Phase I implementation are:

- all agencies that currently utilize CARS as their primary accounting system (enter information on-line to CARS) will use the new solution, and
- agencies that currently interface data to CARS will interface to the new solution.

The agencies that will be affected by implementation of the Performance Budgeting solution are:

- all agencies that currently use PROBUD.

Four additional agency legacy financial management systems will be replaced as part of Phase I (Department of General Services, Virginia Employment Commission, Virginia Information Technologies Agency and Virginia Department of Transportation). All other Executive branch, non-higher education agencies that have their own legacy financial management system will be implemented in a future phase of the VEAP.

The Phase I Planning activity is the process of completing the general design and implementation plan for these two solutions. As stated previously, Phase I of VEAP includes Enterprise Financial Management and Performance Budgeting solutions. Future State Environment Definition Documents have been drafted for each of the following business areas:

- General Accounting,
- Cost Accounting,
- Fixed Assets,
- Accounts Payable,
- Accounts Receivable,
- Purchasing,
- Performance Budgeting, and
- Time and Attendance, Labor Distribution, and Leave Accounting.

The following agencies were invited to participate in the Workshop Session reviews of the *Future State Environment Definition Document – Financial Management – Cost Accounting* to corroborate and provide input to the proposed business process threads:

- Department of Accounts (DOA),
- Department of Corrections (DOC),
- Department of Criminal Justice Services (DCJS),
- Department of Aviation (DOAV),
- Department of General Services (DGS),
- Office of the Attorney General (OAG),
- State Council of Higher Education for Virginia (SCHEV),
- Virginia School for the Deaf and Blind, Stanton (VSDBS),
- Virginia Information Technology Agency (VITA),
- Virginia Employment Commission (VEC),

- Virginia Department of Transportation (VDOT), and
- Virginia Museum of Fine Arts, (VMFA).

### 1.3 Future State Business Process / Best Practice Environment Definition Documents

Completing the Future State Business Process / Best Practice Environment Definition Documents is one of the primary tasks of Phase I Planning. Defining the Future State means addressing and analyzing the best practice business processes, change impacts, organizational design, and functional requirements for each business area. During this effort, CGI and the Commonwealth of Virginia (COVA) will:

- analyze current business processes – review and update business process descriptions documented in the Draft Financial Management (FM) and Performance Budgeting (PB) Future State Business Process / Best Practice Environment Definition Documents,
- identify business process reengineering opportunities,
- define the Future State Environment – document how business processes should be executed with the new enterprise solution, using best practice in conjunction with Commonwealth specific requirements,
- identify any organizational impacts that should be considered with the new enterprise solution,
- validate the functional requirements documented in the Draft Financial Management (FM) and Performance Budgeting (PB) Future State Business Process / Best Practice Environment Definition Documents,
- add necessary requirements,
- remove unnecessary requirements,
- prioritize requirements by business impact,
- identify the organizational impact of the requirements (enterprise-wide vs. agency-specific), and
- finalize the list of functional requirements.

The Final FM & PB Future State Business Process / Best Practice Environment Definition Documents will be used to drive the Fit/Gap Analysis, create several sections of the Final General Design and Implementation Plan deliverable, and develop cost estimates. The document will also be used in subsequent phases of VEAP such as during detailed design and testing. For example, the functional requirements will eventually be further divided into detailed system/technical requirements and used to create test cases/scripts; the defined process threads will drive the execution of business process reengineering efforts during implementation and support the development of training materials.

### 1.4 Purpose

The Future State Environment Definition Document describes the needs, stakeholders, legal and process reforms, process threads, and functional requirements that should be available in a *Financial Management – Cost Accounting* business process solution. This document identifies the activities associated with the *Financial Management – Cost Accounting* business process threads for the Commonwealth, as well as the stakeholders and users associated with such processes. In addition, this document describes high level business processes along with the functional requirements associated with these business processes. All functional requirements are marked with a priority of (1) Mandatory, (2) Desirable or (3) Optional and are identified as Enterprise or agency-specific where necessary.

### 1.5 Scope

This particular future state environment document defines the process threads associated with the following business processes:

- Grant Set Up and Control,
- Project Set Up and Control,
- Transactions,
- Agreements,
- Work Order Control, and

- Indirect Costing and Cost Allocation.

## 1.6 Document Outline

The remainder of the document contains the following sections:

**Section 2 – Positioning.** This section briefly describes the business problems inherent in the current environment and the opportunities for implementation of the Enterprise Resource Planning (ERP) solution.

**Section 3 – Stakeholder and User Descriptions.** This section identifies the Commonwealth and outside organizations that have a significant stake in the process and the success of the project. The on-going roles and responsibilities are described for the Stakeholders and Users along with their organizations.

**Section 4 – Key Product Requirements.** This section introduces the future state environment by identifying the three to six overarching business concepts that will be provided by the ERP solution to address major weaknesses in the current environment.

**Section 5 – Process Thread Summary.** This section documents the specific characteristics of the future state environment. The major business processes are defined within each business area, the key steps in each process, and the specific system capabilities required to support the function in a manner that permits the Commonwealth to meet mandates in an efficient manner.

**Section 6 – Process Thread Detail Description.** This section describes how each business process thread defined in the previous section is performed in the ERP solution. Each process is described in flowchart and tabular format and each process detail step is numbered sequentially within each process thread.

**Section 7 – Product Requirements.** The product requirements are contained in Appendix A and define the specific features and capabilities that the ERP solution must provide in order to support the defined future state environment and achieve the described benefits. These requirements describe what the system needs to do, but not how it must be done.

**Section 8 – Data Flow Details.** This section details the flows of data both in and out of the business process. The graphics contained in this section identify the impacts to existing systems and processes as they relate to each agency in the Commonwealth.

**Section 9 – References.** This section contains the sources of information used as references to the business process. The terms used in the document along with the definitions of those terms are also included in this section.

## 2. Positioning

This section of the Future State Environment Definition Document will describe the overall business opportunity for the *Financial Management – Cost Accounting* business process. This will describe some of the high level changes that need to occur, state the current problems in the existing environment, and identify the potential benefits that could be achieved through the ERP solution.

### 2.1 Business Opportunity

The VEAP Team strongly believes that a comprehensive solution to the Commonwealth's business concerns involves much more than simply installing new technology. Rather, a complete solution is the integration of technology, process, people, and approach in a manner that recognizes the unique aspects of the current situation and the future. The solution we envision for VEAP in the area of financial and operational accounting considers all these elements.

The Commonwealth currently relies on numerous systems, applications, and processes to support the *Financial Management – Cost Accounting* business process. The recommended ERP solution would include the following elements:

- a modern, public sector-oriented, integrated Financial System as the core of the new architecture,
- a service delivery organizational structure that recognizes the wide range of differences among the various Commonwealth agencies and provides the flexibility for each agency to execute business processes in the manner and with a staffing structure that best meets its needs, and
- a phased implementation approach that gives the Commonwealth the opportunity to carefully control costs and risks, and to make implementation and rollout decisions based upon both project performance and other future conditions.

At a minimum, this commercially available application would replace CARS and a significant percentage of the function-specific modules that have been developed by many agencies to address CARS deficiencies.

### *2.1.1 Systems*

CARS does not have the functionality to perform cost accounting functions; therefore, agencies have implemented either standalone financial management systems and/or use other systems and processes to perform these functions. Among the other agency systems/applications supporting cost accounting are the following:

- FMSII - Financial Management System (VDOT),
- PeopleSoft (DGS),
- PeopleSoft (VITA),
- CAPPS - Commonwealth Allocation Planning and Performing Services System (DOA),
- EMS - Equipment Management System (VDOT),
- FMS - Facilities Management System (DGS),
- SESA - State Employment Security Agency System (VEC),
- OMEGA - Online Management of Education Grant Awards (VDOE),
- DCJS - Grant Management Information System,
- DOAV - Airport IQ, and
- DOAV - Aviation Accounting System.



## 2.1.2 Current State

### Exhibit 1 - FM07 Cost Accounting - Current State Environment

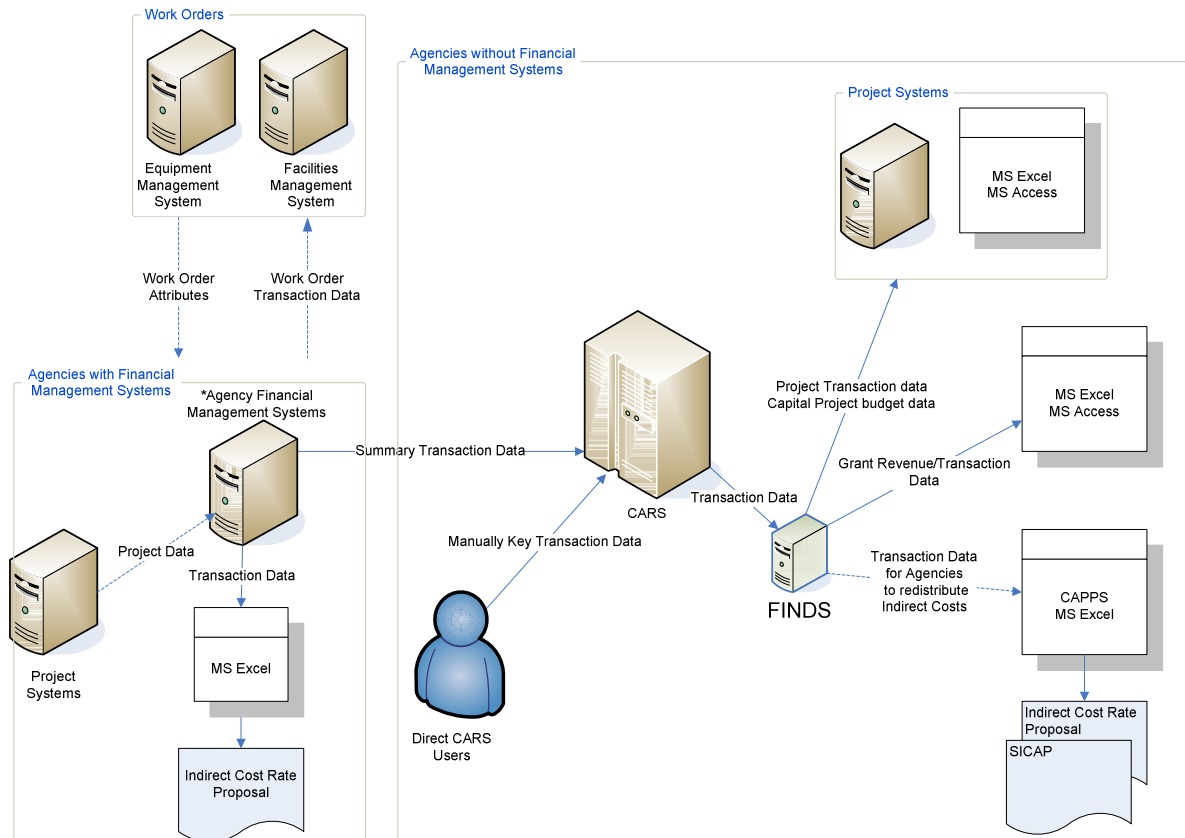


Exhibit 1 illustrates the cost accounting current state environment. The Commonwealth does not have a financial system that adequately supports all of the processes associated with cost accounting. Although grant and project identifiers and budgets are established in CARS, CARS does not have the functionality to store key grant and project attributes (i.e. responsible party, grant drawdown parameters) or perform key grant-related functions (i.e. management of cash management improvement act activities). Federal billing and reimbursement also has to be performed outside of CARS. Many of the processes required to execute indirect cost recovery and cost allocation (i.e. calculation of allocation rates, generation of allocation reports) are also done outside of CARS because it lacks the functionality. Since CARS cannot perform these cost accounting functions, agencies have implemented either standalone financial management systems and/or manual processes to perform these functions.

### 2.1.3 Future State

#### Exhibit 2 - FM07 Cost Accounting - Future State Environment

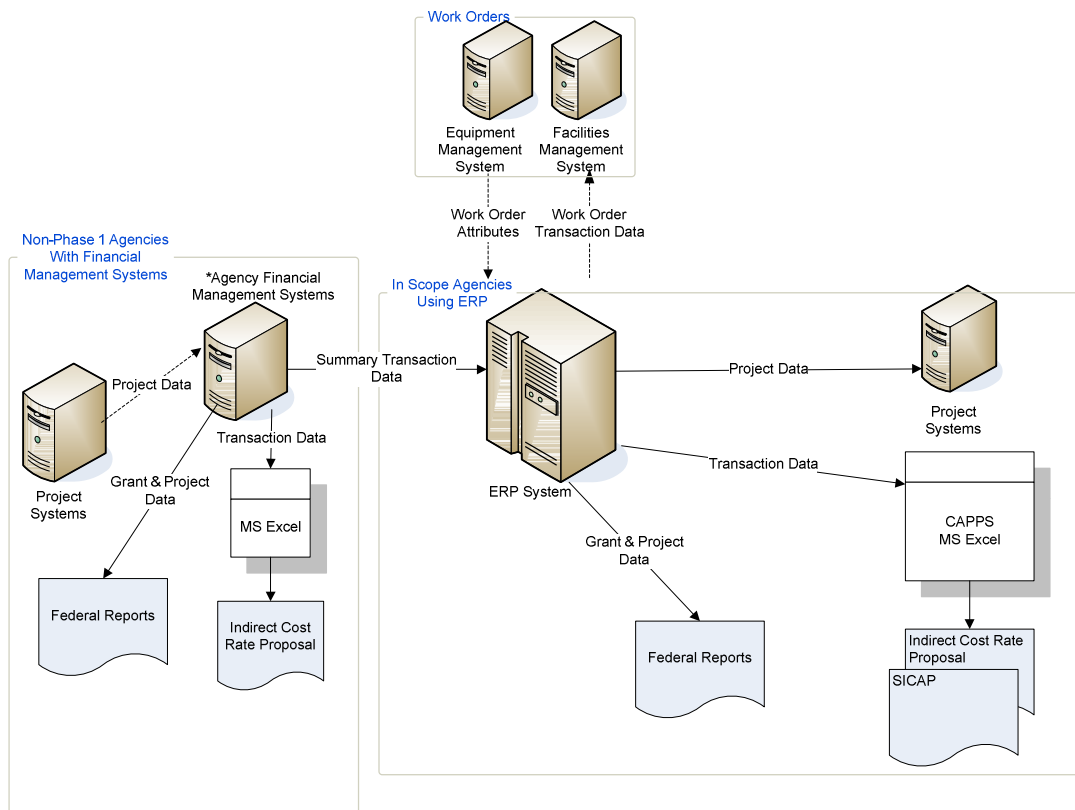


Exhibit 2 illustrates the cost accounting future state environment. In the future state environment, many cost accounting functions will be included in the Commonwealth ERP system including:

- Grant Application and Award Tracking,
- Grant Set Up and Control,
- Project Set Up and Control,
- Grant Drawdown and Billing,
- Work Order Billing, and
- Indirect Costing and Cost Allocation.

Agencies that currently interface financial data to CARS (excluding the agencies described in Section 1) will be rolled into VEAP during Phase 2. Out of scope agencies, including Higher Education agencies (all colleges and universities), as well as independent agencies/commissions that do not use CARS as their primary financial system today will also be assessed during Phase 2.

### 2.1.4 Improvement Opportunities

The implementation of the new ERP system along with new and modified policies and procedures will provide a number of benefits and improvements to financial management processes within the Commonwealth of Virginia.

Some of the overall improvements that will be achieved with the new ERP system are:

- elimination of redundant data entry and reconciliation,

- automated workflow capabilities,
- reduced risk associated with dated system applications and the aging workforce most familiar with them,
- a web-based, intuitive user interface,
- more efficient customer service to the citizens of the Commonwealth of Virginia,
- integrated and powerful reporting capabilities including management reporting tools, decision analytics, and management performance dashboards, as well as a variety of standard reports, inquiries, and tools, and
- comprehensive security and internal controls.

Some cost accounting specific improvements that will be achieved with the new ERP system are:

- consistent application of cost accounting policies and procedures (such as CMIA management),
- tracking of grant applications will provide information on grants that were not awarded (i.e. number of grants, reasons for rejection),
- flexibility for agencies to be able create specific cost accounting reports and queries,
- ability to perform cost allocation calculations and other functions previously performed in other places within the ERP system, and
- all transaction data used for cost allocation and tracking will be in the ERP system.

## **2.2 Problem Statement**

The problem statement below identifies the overall problems that are apparent for the current environment related to *Financial Management – Cost Accounting*.

Problem	Effect	Impact	Solution	Benefit
<p>1. (a) CARS does not have baseline grant management, federal reimbursement or cost accounting functionality.</p> <p>(b) CARS also lacks integration with financial management processes that are related to (but outside of) cost accounting.</p>	<ul style="list-style-type: none"> <li>Agencies have implemented their own cost accounting processes across the Commonwealth.</li> <li>Duplicative data entry is often required into multiple systems.</li> </ul>	<ul style="list-style-type: none"> <li>Agencies have implemented supplemental applications to provide functionality not met by CARS.</li> <li>Additional costs and resource time are required for re-entering data multiple times into multiple applications.</li> <li>Agencies have implemented supplemental applications to provide functionality not met by CARS.</li> <li>Additional costs and resource time are required for re-entering data multiple times into multiple applications.</li> </ul>	<ul style="list-style-type: none"> <li>The financial management system will provide baseline grant management and cost accounting functionality.</li> </ul>	<ul style="list-style-type: none"> <li>Increased integration within accounting, with other functions, and with certain agency specific processes</li> <li>Consistent management and compliance with CAFR and Cash Management Improvement Act (CMIA) policies.</li> <li>Elimination of redundant, agency-specific cost accounting systems.</li> <li>Reduced duplicative data entry.</li> </ul>
<p>2. The financial management system lacks sufficient inquiry and management reporting capabilities for controlling expenditures that are specific to cost accounting.</p>	<ul style="list-style-type: none"> <li>Management's ability to make effective decisions is hindered.</li> <li>Reports that meet federal reporting requirements have to be created by other means, i.e. from other systems or manually from spreadsheets or other tools.</li> </ul>	<ul style="list-style-type: none"> <li>The decision making process takes longer because management has to take additional time to acquire the information necessary to make decisions.</li> <li>Additional costs and resource time are required to create reports through these additional methods.</li> </ul>	<ul style="list-style-type: none"> <li>The financial management system will provide user access to current and historical data, as well as user-friendly management reporting capabilities.</li> </ul>	<ul style="list-style-type: none"> <li>Improved management information for any level of decision making and control</li> <li>Multi-dimensional tracking of costs</li> <li>Flexible financial reporting</li> </ul>

Problem	Effect	Impact	Solution	Benefit
3. Limitations in CARS leads to the maintenance and operation of numerous and often duplicative systems.	<ul style="list-style-type: none"> <li>Agencies have implemented their own systems and practices. These additional systems require maintenance and support.</li> <li>Duplicative data entry into multiple systems is sometimes required.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of consistent application of policies and procedures across the Commonwealth.</li> </ul>	<ul style="list-style-type: none"> <li>The financial management system will serve as a single, integrated solution for all cost accounting activities.</li> </ul>	<ul style="list-style-type: none"> <li>Improved workflow between agencies and the Department of Accounts.</li> <li>Reduced duplicate data entry.</li> <li>Improved management of CMIA, Federal Schedules, and CAFR.</li> </ul>

### 3. Stakeholder and User Descriptions

To effectively provide products and services that meet the needs of stakeholders and users, it is necessary to identify and involve all of the stakeholders as part of the ‘future state environment’ for the *Financial Management – Cost Accounting* business process. This section provides a profile of the stakeholders and users involved in the project and the key problems that they perceive will be addressed by the ERP solution.

#### 3.1 Stakeholder and User Definition

A stakeholder is a party who affects, or can be affected by, the Commonwealth's actions in relation to the business process within the Financial Management and Performance Budgeting Processes. The stakeholder concept was developed and championed by R. Edward Freeman in the 1980s. It has gained wide acceptance in business practice and in theorizing relating to strategic management, governance, and business purpose.

Users are widely characterized as the class of people that uses a system without complete technical expertise. However, users have understanding and knowledge of the business process in which the system is used to accomplish the execution of the business process.

#### 3.2 User Summary

This section provides a list of the users involved in the project. This information will be used in the following section which describes the user profiles:

- In-Scope Agency Financial Management (FM) Staff,
- Department of Accounts (DOA),
- Department of General Services (DGS),
- Virginia Employment Commission (VEC),
- Virginia Department of Transportation (VDOT),
- Virginia Information Technologies Agency (VITA), and
- Auditor of Public Accounts (APA).

#### 3.3 User Profiles

Each unique user of the system is described in this section. User types can be as divergent as experts and novices. For example, an expert might need a sophisticated, flexible tool with cross-platform support, while a novice might need a tool that is intuitive based upon prescribed standards. No attempt is made in this section to distinguish between the different users’ requirements.

### 3.3.1 In-Scope Agency Financial Management (FM) Staff

<b>User Type Name</b>	In-Scope Agency FM Staff
<b>Representative</b>	In-Scope Agency FM Staff from any agency who manage financial activities
<b>Description</b>	In-Scope Agency FM Staff is involved in supporting cost accounting activities
<b>Type</b>	In-Scope Agency FM Staff are users of the system
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• Support grant and cost accounting activities</li> <li>• Provide customer service to agencies, management and employees</li> <li>• Define agency-specific grant and cost accounting processes, procedures and reports (i.e. track budget to actuals)</li> <li>• Develop and provide agency-specific training</li> <li>• Provide internal controls and measures to maintain the financial integrity of data entered into the system</li> </ul>
<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>• The system is useable by trained staff</li> <li>• Ability to retire legacy financial management systems</li> <li>• Streamlined grant and cost accounting policies</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>• Provide knowledge as needed in relation to business processes</li> <li>• Streamline agency specific Cost Accounting policies, procedures and business processes</li> <li>• Participate in User Acceptance Testing</li> </ul>

### 3.3.2 Department of Accounts (DOA)

<b>User Type Name</b>	Department of Accounts (DOA)
<b>Representative</b>	DOA employees, specifically those involved in cost accounting activities
<b>Description</b>	DOA is the central financial accounting agency for the Commonwealth. The Department, under the direction of the State Comptroller, is responsible for the following activities: <ul style="list-style-type: none"> <li>• Providing a unified financial accounting and control system for state funds</li> <li>• Developing a comprehensive system of checks and balances between state agencies entrusted with the collection, receipt and disbursement of state revenues</li> <li>• Maintaining a central accounting system for all state agencies and institutions</li> </ul>
<b>Type</b>	DOA maintains, supports and is a user of the system
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• To provide a uniform system of accounting, financial reporting, and internal control (including management of CMIA policies) adequate to protect and account for the Commonwealth's financial resources, while supporting and enhancing the recognition of Virginia as the best managed state in the union</li> <li>• Develop and provide system training to Commonwealth personnel</li> </ul>
<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>• The system is useable by trained staff</li> <li>• Ability to retire legacy financial management systems</li> <li>• Streamlined grant and cost accounting policies and processes</li> <li>• Reporting tools support ad hoc reporting</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>• Provide knowledge as needed in relation to business processes</li> <li>• Streamline agency specific Cost Accounting policies, procedures and business processes</li> <li>• Participate in User Acceptance Testing</li> </ul>

### 3.3.3 Department of General Services (DGS)

<b>User Type Name</b>	Department of General Services (DGS)
<b>Representative</b>	DGS employees, specifically those involved in cost accounting activities
<b>Description</b>	DGS provides key centralized administrative functions to the Commonwealth
<b>Type</b>	DGS is a user of the system
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• Develop Commonwealth-wide policies, procedures and business processes for general procurement</li> <li>• Manage centralized functions (i.e. building/lease maintenance, fleet management, engineering, support services) used by Commonwealth agencies</li> </ul>

<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>• The system is useable by trained staff</li> <li>• Ability to retire legacy financial management systems</li> <li>• Streamlined grant and cost accounting policies and processes</li> <li>• Reporting tools support ad hoc reporting</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>• Provide knowledge as needed in relation to business processes</li> <li>• Streamline agency specific Cost Accounting policies, procedures and business processes</li> <li>• Participate in User Acceptance Testing</li> </ul>

### 3.3.4 Virginia Employment Commission (VEC)

<b>User Type Name</b>	Virginia Employment Commission (VEC)
<b>Representative</b>	VEC employees, specifically those involved in cost accounting activities
<b>Description</b>	<p>The VEC provides the following services to the public including:</p> <ul style="list-style-type: none"> <li>• Assistance in finding jobs</li> <li>• Administration of programs that provide temporary income for unemployed citizens</li> <li>• Assistance to businesses seeking to fill job openings</li> <li>• Dissemination of labor market information to job seekers and businesses</li> </ul>
<b>Type</b>	VEC agency financial managers and cost center managers are users of the system
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• Deliver job seeker and unemployment services to the public.</li> <li>• Account for the Federal funds expended in the course of performing the VEC mission</li> <li>• Implement internal controls over the process of expending and reporting Federal funds</li> </ul>
<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>• The system is useable by trained staff</li> <li>• Ability to retire legacy financial management systems</li> <li>• Streamlined grant and cost accounting policies and processes</li> <li>• Reporting tools support ad hoc reporting</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>• Provide knowledge as needed in relation to business processes</li> <li>• Streamline agency specific Cost Accounting policies, procedures and business processes</li> <li>• Participate in User Acceptance Testing</li> </ul>

### 3.3.5 Virginia Department of Transportation (VDOT)

<b>User Type Name</b>	Virginia Department of Transportation (VDOT)
<b>Representative</b>	VDOT employees, specifically those involved in cost accounting activities
<b>Description</b>	VDOT is responsible for the planning, development, maintenance and operation of the Commonwealth of Virginia's transportation infrastructure network
<b>Type</b>	VDOT is a user of the system
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>• Design the network for an effective ground transportation program</li> <li>• Provide engineering, technical and financial services to implement planned program</li> <li>• Effectively manage construction program delivery</li> <li>• Manage the operation of a safe and efficient ground transportation system</li> <li>• Manage and preserve transportation infrastructure assets</li> </ul>
<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>• The system is useable by trained staff</li> <li>• Ability to retire legacy financial management systems</li> <li>• Streamlined grant and cost accounting policies and processes</li> <li>• Reporting tools support ad hoc reporting</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>• Provide knowledge as needed in relation to business processes</li> <li>• Streamline agency specific Cost Accounting policies, procedures and business processes</li> <li>• Participate in User Acceptance Testing</li> </ul>

### 3.3.6 Virginia Information Technology Agency (VITA)

<b>User Type Name</b>	Virginia Information Technology Agency (VITA)
<b>Representative</b>	VITA employees, specifically those involved in cost accounting activities and information technology project oversight

<b>Description</b>	VITA provides key centralized information technology support and oversight to the Commonwealth
<b>Type</b>	VITA provides technology maintenance and support and is a user of the system
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>Developing and rolling out technology standards (i.e. software, hardware, security) across the Commonwealth</li> <li>Manage technology-related centralized functions (i.e. telecommunications service, distribution of hardware and software) used by Commonwealth agencies</li> <li>Provide oversight and leadership to enterprise-wide IT initiatives and projects</li> </ul>
<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>The system is useable by trained staff</li> <li>Ability to retire legacy financial management systems</li> <li>Streamlined grant and cost accounting policies and processes</li> <li>Reporting tools support ad hoc reporting</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>Provide knowledge as needed in relation to business processes</li> <li>Streamline agency specific Cost Accounting policies, procedures and business processes</li> <li>Participate in User Acceptance Testing</li> </ul>

### 3.3.7 Auditor of Public Accounts (APA)

<b>User Type Name</b>	Auditor of Public Accounts (APA)
<b>Representative</b>	APA employees, specifically those involved with auditing the VEAP project
<b>Description</b>	APA is the independent auditor for the Commonwealth, providing quality assurance to assess compliance with accounts payable activities
<b>Type</b>	Auditor of Public Accounts is auditing the VEAP project for the Commonwealth
<b>Responsibilities</b>	<ul style="list-style-type: none"> <li>Attend VEAP meetings and working sessions</li> <li>Review all documented VEAP project material</li> <li>Provide feedback on the VEAP project to the VEAP management team</li> </ul>
<b>Success Criteria</b>	<ul style="list-style-type: none"> <li>The system is useable by trained staff</li> <li>Ability to retire legacy financial management systems</li> <li>System easily provides data for an audit</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>Independent review</li> </ul>

## 3.4 Stakeholder Summary

The following section provides a list of the groups/parties which can either affect or can be affected by the Commonwealth's actions in relation to the business processes within Financial Management. The table that follows additionally provides information about the type of influence the stakeholder may have, their needs and expectations, success criteria, key challenges/issues/concerns associated with the stakeholder, as well as the risk of not addressing their needs/expectations, and the stakeholder's general interest in the VEAP.

## 3.5 Appendix B – Stake holder Profiles

## 4. Key Product Requirements

While the detailed business and system requirements for the Cost Accounting Business Process are contained within Appendix A, several high-level Cost Accounting requirements are highlighted below.

**Performs grant and project set up and control:** The requirement is to record the attributes about grants and projects directly in the system. This includes tracking of grant application, the establishment of grant and project budgets, the ability to control and track grant and project related expenditures, and the ability to record expenditures or receipts against grants and projects on financial transactions.

**Performs federal billing and reimbursement and grant drawdowns:** The requirement is to calculate the amounts to be billed to federal agencies and to perform the reimbursement process, as well as to calculate the amounts to be drawn for grants and to perform the drawdown process.

**Perform Indirect Cost Recovery and Cost Allocation:** The requirement is to allocate direct and indirect



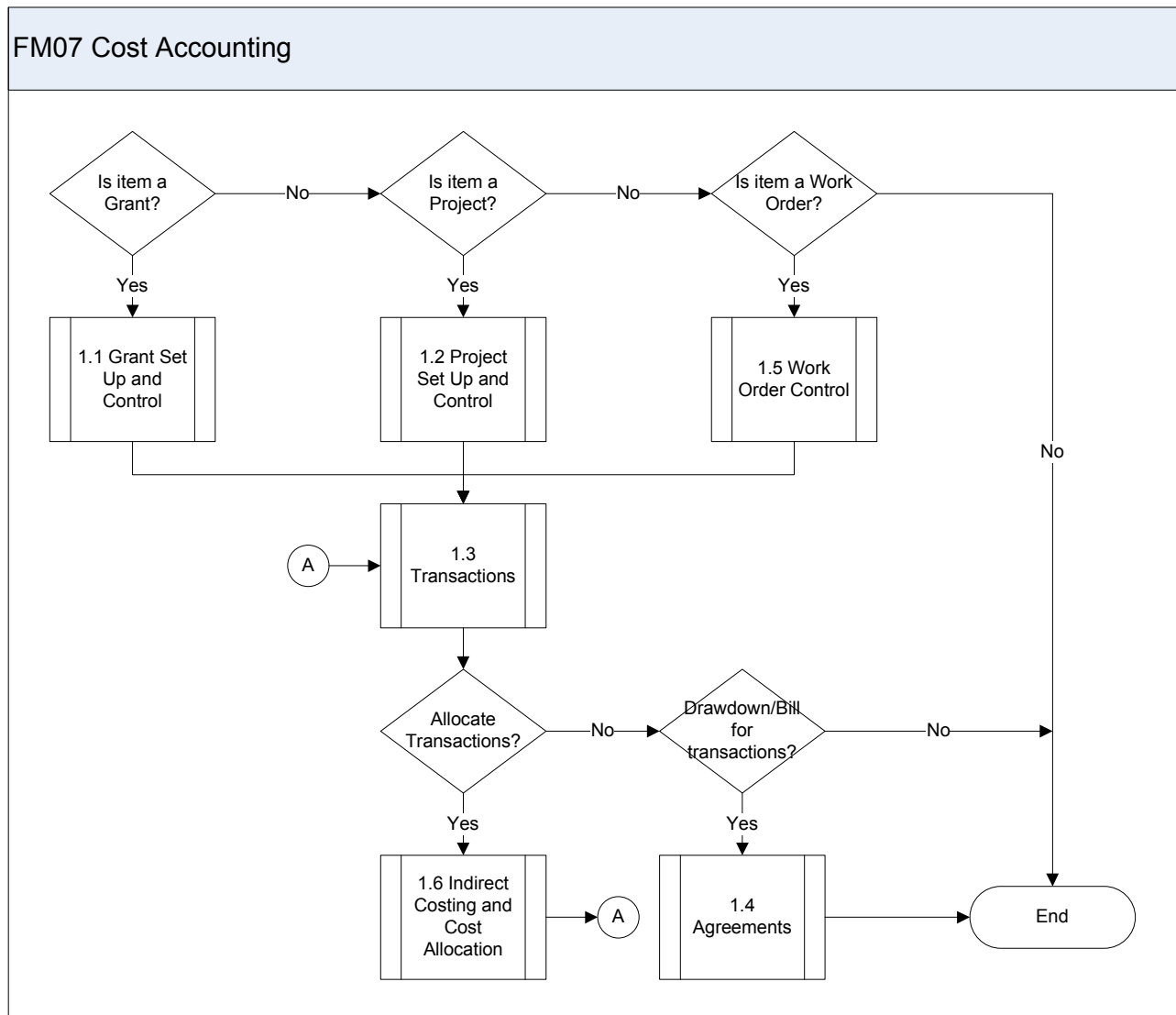
costs based on user defined distribution parameters.

**Robust and Flexible Reporting:** The requirement is to provide a robust reporting tool that can create reports that meet Commonwealth and federal reporting requirements.

## 5. Process Thread Summary

This section lists the process threads related to the *Financial Management – Cost Accounting* business process. It provides a general description of the business process and lists governing regulations and policy or procedures related to the *Financial Management – Cost Accounting* business process.

### Exhibit 3 – FM07 Cost Accounting – Business Process Flow



Number	Business Thread Name	Description of Business Process Thread	Governing Regulations/Policy
FM07-1.1	Grant Set up and Control	Grant Set up and Control is the establishment, as well as the tracking and control of the grant and key grant characteristics, including grantor, duration of grant, grant budget and relationships with other grants. It also includes establishment of cash management procedures including Cash Management Improvement Act (CMIA), as well as the tracking of grant award/rejection after the grant has been applied for.	<ul style="list-style-type: none"> <li>• Appropriation Act § 4-1.05 (b3) and § 4-2.01(a)</li> <li>• ASMB C-10</li> <li>• CAPP Manual – Topic 20605</li> <li>• CAPP Manual – Topic 60110</li> <li>• CAPP Manual – Topic 60112</li> <li>• Cash Management Improvement Act of 1990</li> <li>• Office of Management and Budget circulars A-21, A-87 and A-110</li> </ul>
FM07-1.2	Project Set up and Control	Project Set up and Control is the establishment of the project and key project characteristics including project description, project budget, duration of project and relationships with other projects.	<ul style="list-style-type: none"> <li>• Appropriation Act § 4-4.01</li> <li>• CAPP Manual – Topic 20605</li> <li>• CAPP Manual – Topic 60110</li> <li>• CAPP Manual – Topic 60112</li> </ul>
FM07-1.3	Transaction Processing	Transaction Processing is the identification and coding of required attributes on grant and project related accounting transactions and the tracking of accounting transactions against grant and project budgets.	<ul style="list-style-type: none"> <li>• CAPP Manual – Topic 60101</li> <li>• CAPP Manual – Topic 60103</li> <li>• CAPP Manual – Topic 60105</li> <li>• CAPP Manual – Topic 60108</li> <li>• CAPP Manual – Topic 60310</li> <li>• CAPP Manual – Topic 70245</li> </ul>
FM07-1.4	Agreements	Agreements are the establishment of grant drawdown and project billing and reimbursement parameters and the calculation of drawdown and billing amounts.	<ul style="list-style-type: none"> <li>• CAPP Manual – Topic 20605</li> <li>• Cash Management Improvement Act of 1990</li> <li>• Office of Management and Budget circular A-87</li> </ul>
FM07-1.5	Work Order Control	Work orders are mechanisms for accumulating related expenditures and other costs for some specific purpose. Work Order Control is the establishment, processing and billing of transactions associated with specific work orders.	<ul style="list-style-type: none"> <li>• CAPP Manual – Topic 20310</li> <li>• CAPP Manual – Topic 20605</li> </ul>
FM07-1.6	Indirect Costing and Cost Allocation	Indirect Costing and Cost Allocation include the identification, calculation and distribution of both direct and indirect costs associated with grants, projects and work orders.	<ul style="list-style-type: none"> <li>• Appropriation Act § 4-2.03</li> <li>• CAPP Manual – Topic 20605</li> <li>• CAPP Manual – Topic 20705</li> <li>• Office of Management and Budget circulars A-21, A-87 and A-110</li> </ul>

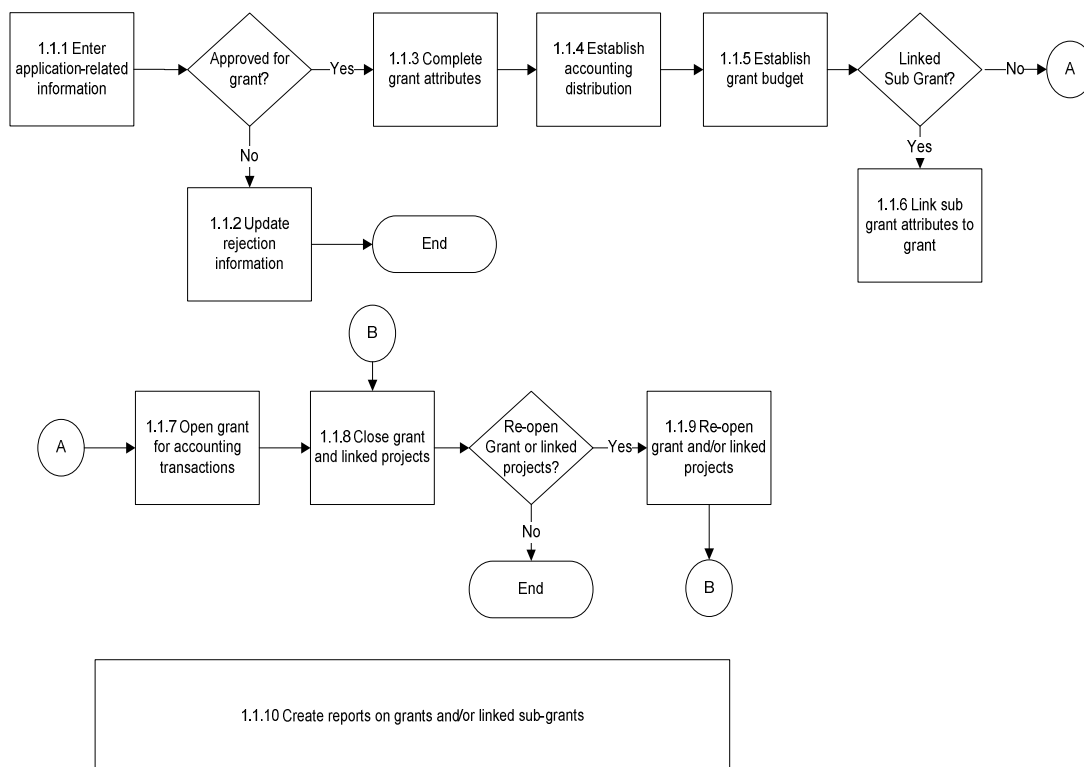
## 6. Process Thread Description

This section describes each process thread above with a more detailed description.

## 6.1 Grant Set Up and Control

### Exhibit 4 – FM07 Cost Accounting – Grant Set Up and Control

#### FM07-1.1 Grant Set Up and Control



FM07-1.1 – Process Thread Description – Grant Set Up and Control	
Process Description:	Grant Set up and Control is the establishment, as well as the tracking and controlling of grants and key grant characteristics, including grantor, duration of grant, grant budget and relationships with other grants. It also includes establishment of cash management procedures including Cash Management Improvement Act (CMIA), as well as the tracking of the grant application and award. Sub grant set up and projects linked to grants are also established in this process.
Improvement Opportunities:	<ul style="list-style-type: none"> <li>Establishment of grant and grant budgets in the enterprise application could result in the elimination of duplicative agency systems.</li> <li>Establishment of process to track possible sources of grant related revenue at COVA level will create efficiencies.</li> </ul>
Legal/Policy Reform Impacts:	<p><b><u>Legal</u></b></p> <p><b><u>Policy</u></b></p> <ul style="list-style-type: none"> <li>Policy reform is necessary to require entry of grant attributes in the ERP system during the application process (this policy does not exist today).</li> <li>Policy reform will be necessary to require that all agencies use the ERP assigned values for grant identifiers.</li> </ul>

FM07-1.1 – Process Thread Description – Grant Set Up and Control	
Organization/People Impacts:	<ul style="list-style-type: none"> <li>• Reduce staff time expended tracking grant application/award and performing set up procedures.</li> <li>• Training required for agencies on new web enabled system.</li> <li>• New procedures are required for tracking grant application/award and setting up grant/sub-grant/project combinations.</li> </ul>
Assumptions:	<ul style="list-style-type: none"> <li>• Grant application submission will not be a function of the financial system. The financial system will only track the status of grant applications. All grants that are applied for will be tracked by the financial system to serve as a control point to capture all possible sources of grant related revenue.</li> <li>• All grant identifiers will be generated by the ERP system.</li> <li>• Establishment of sub-grants or projects linked to grants will depend on capabilities of the ERP solution – if a solution does not have the capability to create sub-grants, projects can instead be used.</li> </ul>
Access Methods:	<ul style="list-style-type: none"> <li>• Web Browser.</li> </ul>
System Interfaces:	<ul style="list-style-type: none"> <li>• Agency and federal grant management systems.</li> </ul>

Process Details			
ID	Step	Description	Detailed Steps
1.1.1	Enter application-related information	Grant application tracking is the recording of the award or rejection of grant application in the ERP system. Grants that will be renewed regularly can be established in the ERP system as a template. Users can open the template, modify information as necessary and save, reducing steps. If a template does not exist, user will enter information directly.	<p>Step 1: If grant template exists, search for existing template.</p> <p>Step 2: Once existing template is found, review saved information. This information includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>○ Grant name,</li> <li>○ Type of Grant,</li> <li>○ Federal catalog number,</li> <li>○ Application date, and</li> <li>○ Estimated award amount.</li> </ul> <p>Step 3: Once the information is entered, a system generated grant identifier is assigned.</p>
Decision Point	Approved for grant?	Once the decision to approve or reject the grant application is known, the user can either continue the process by entering the additional grant attributes or end the process by just entering the rejection information about the grant.	
1.1.2	Update rejection information	If the grant application is rejected, the date and reason for rejection is recorded in the ERP system.	<p>Step 1: Search for existing record using the grant identifier.</p> <p>Step 2: Enter rejection reason and rejection date and any other comments relevant to the rejected application.</p>

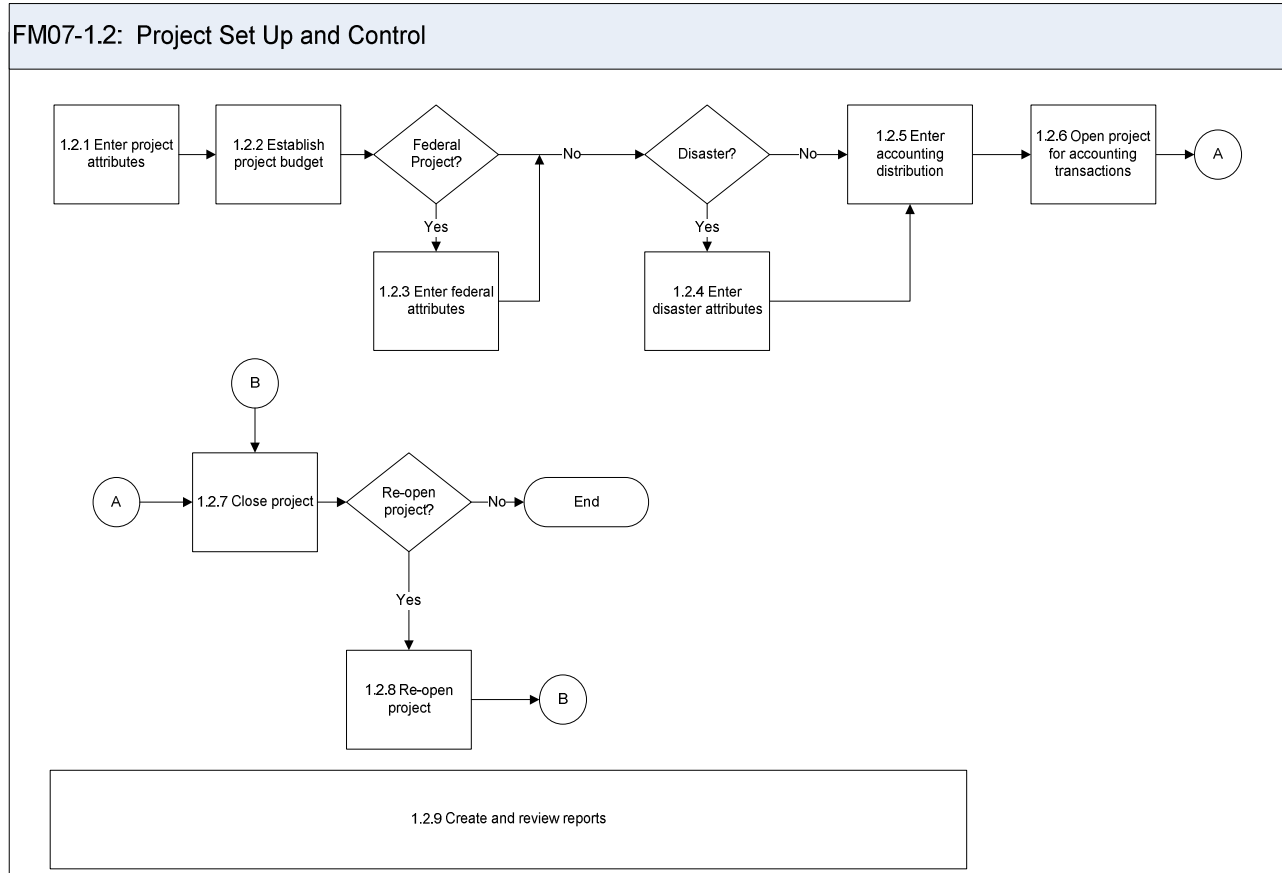
Process Details			
ID	Step	Description	Detailed Steps
1.1.3	Establish grant attributes	Once the grant application is approved, the rest of the information about the grant is entered.	<p>Step 1: Search for existing record using the grant identifier.</p> <p>Step 2: Enter approval date, approved amount and any other comments relevant to the rejected application</p> <p>Step 3: Complete remaining grant identifying information for approved/awarded grants. This information includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>○ Actual award amount,</li> <li>○ Award date,</li> <li>○ Grant description,</li> <li>○ Grant manager, and</li> <li>○ Start and end dates.</li> </ul> <p>Enter information for user definable fields established by Agency. (Ex.: Obligation date, date obligation must be spent, other tickler items, etc.)</p> <p>Step 4: Set combination edits that control any restrictions related to grant, if applicable.</p>
1.1.4	Enter accounting distribution	The accounting distribution chart of account information for the grant is entered. At this point, all set up information has been entered.	<p>Step 1: Enter accounting distribution information for the grant. This information includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>○ Fund source,</li> <li>○ Program,</li> <li>○ Cost Center,</li> <li>○ Activity,</li> <li>○ Task,</li> <li>○ Route, and</li> <li>○ Building/Location.</li> </ul>
1.1.5	Establish grant budget	The amount awarded for the grant is established in the ERP system as the grant budget.	<p>Step 1: Enter the award amount as the budget amount for the grant.</p> <p>Step 2: Initiate grant budget system entries to complete establishment of budget.</p>
Decision Point	Linked sub-grant?	If there is a linked sub-grant, it will have to be established and its attributes will have to be linked to the parent grant.	
1.1.6	Link sub grant attributes to grant	Establish the descriptive attributes of the sub-grant and link it with parent grant.	<p>Step 1: Establish sub grant identifying information. This includes information such as:</p> <ul style="list-style-type: none"> <li>○ Sub grant/project description, and</li> <li>○ Start and End dates.</li> </ul> <p>Step 2: Establish link with parent grant.</p>

Process Details			
ID	Step	Description	Detailed Steps
1.1.7	Open grant for accounting transactions	Even when all set up information has been entered, the grant may not be ready to have expenditures charged against it. Once the grant is ready, this step is performed. The grant is open for transactions until the end date is reached.	Step 1: Enter date charges are allowed to post. Step 2: Open grant for transactions (i.e. selecting an indicator or checkbox). Step 3: Indicate federal and/or state charges are allowed. Step 4: Transactions are entered against grant. Step 5: Grant budgets can be tracked on line or through reports.
1.1.8	Close grant and linked sub-grants	When the end date of the grant is reached, the ERP system will not allow new charges; however, there may be reason to keep the grant open for adjustments, corrections and special circumstances. Once it is determined that there should be no more charges against the grant, it can be closed. Valid value checks will be performed at the point of entry of transactions related to grants to indicate whether the grant identifier can be used for processing the transaction. If the grant is closed, an error message should be displayed indicating the grant identifier is not valid.	Step 1: Search for existing record using the grant identifier. Step 2: Close grant. Valid value checks will be performed at the point of entry of transactions related to grants/sub-grants to indicate whether a grants/sub-grant id can be used for processing the transaction. If the grant/sub-grant is closed, an error message should be displayed indicating the grant/sub-grant id is not valid.
Decision Point	Re-open grant and/or linked projects?	There may be a need to re-open the grant or linked project (for example, an expenditure adjustment is required).	
1.1.9	Re-open grant or linked projects	When there is a need to re-open the grant and/or linked project, this step is performed.	Step 1: Search for existing record for grant and/or linked project. Step 2: Re-open the grant and/or linked project. Step 3: Re-close the grant and/or linked project.

Process Details			
ID	Step	Description	Detailed Steps
1.1.10	Create and review reports on grants and/or linked projects	Reports can be generated for analysis and review at any time once the grant is open for transactions. Reports can also be generated to review information about the grant attributes, as well as application tracking information. Reports can also be generated on projects linked to the grant.	Step 1: Create reports with the ERP system reporting tool at any time after the grant and/or linked project is opened for transactions. Step 2: Review and analyze reports.

## 6.2 Project Set Up and Control

### Exhibit 5 – FM07 Cost Accounting – Project Set Up and Control



FM07-1.2 – Process Thread Description – Project Set Up and Control	
Process Description:	Project Set up and Control is the establishment of the project and key project characteristics including project description, project budget, project duration, project manager and relationships with other projects. It also includes the development of financial reports and statements for tracking project expenditures and billings.
Improvement Opportunities:	<ul style="list-style-type: none"> <li>Establishment of project and project budgets in the enterprise application could result in the elimination of duplicative agency systems.</li> </ul>
Legal/Policy Reform Impacts:	<p><b><u>Legal</u></b></p> <p><b><u>Policy</u></b></p> <ul style="list-style-type: none"> <li>Policy reform will be necessary to require that all agencies use the ERP assigned values for project identifiers.</li> </ul>
Organization/People Impacts:	<ul style="list-style-type: none"> <li>Reduce staff time spent setting up projects.</li> <li>Training for agencies required on new web enabled system.</li> <li>New procedures are required for setting up projects.</li> </ul>
Assumptions:	<ul style="list-style-type: none"> <li>The financial system will not be a project management, project or right of way planning, or resource management tool.</li> <li>All project identifiers will be generated by the ERP system.</li> </ul>
Access Methods:	<ul style="list-style-type: none"> <li>Web Browser.</li> </ul>
System Interfaces:	<ul style="list-style-type: none"> <li>Agency project support systems.</li> </ul>



ID	Step	Process Details	
		Description	Detailed Steps
1.2.1	Enter project attributes	Information about the project is entered.	<p>Step 1: Establish project information - this can include but is not limited to:</p> <ul style="list-style-type: none"> <li>○ Project type,</li> <li>○ Project split attributes (if applicable),</li> <li>○ Project description,</li> <li>○ Project phases, and</li> <li>○ Phase open and close dates.</li> </ul> <p>Step 2: At this point, the project identifier is assigned.</p>
1.2.2	Establish project budget	The project budget is established in the ERP system. Agencies will have the ability to track and/or control expenditures against the project budgets. Controls can be established to prevent additional transactions from automatically posting to the project once total expenditures reach the established budget amount.	<p>Step 1: Enter the budget amount for the project</p> <p>Step 2: Set budget parameters to track and/or control expenditures against the budget.</p> <p>Step 3: Initiate budget allocation journal entries to complete establishment of budget.</p>
Decision Point	Federal project?	The project may be linked to a federally established project. If it is, additional steps (described in 1.2.3) must occur.	
1.2.3	Enter Federal attributes	If the project being established is a federal project, the agency must enter additional information related to the authorization of federal funding.	Step 1: Establish federal attributes for the project by entering information such as federal authorization date, federal project amount, descriptive federal project number, and billing indicator.
Decision Point	Disaster?	The project may be linked to a disaster. If it is, additional steps (described in 1.2.4) must occur.	

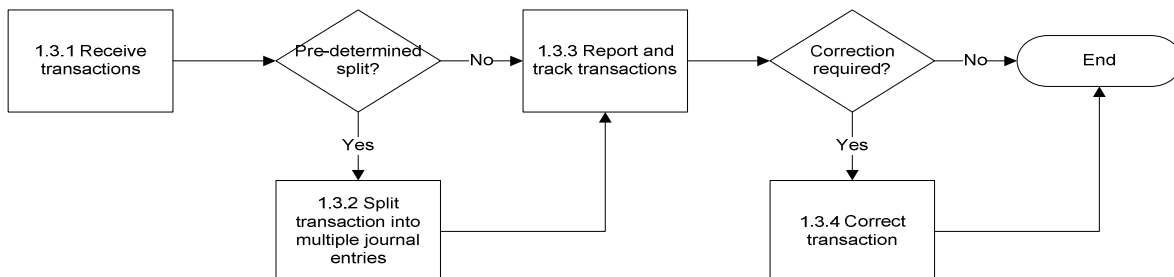
ID	Step	Process Details	
		Description	Detailed Steps
1.2.4	Enter disaster attributes	If the project is related to a disaster, the disaster attributes must be defined in order to generate a disaster number that will be used to link the project to a disaster. The disaster must be defined to capture required federal information and agency specific criteria.	<p>Step 1: Define the federal disaster attributes by entering the federal declaration number, effective date, status, issue date, disaster amount, start and end dates, and any additional descriptive information describing the purpose/scope of the disaster.</p> <p>Step 2: Define internal agency disaster attributes such as status, start and end dates, disaster type, federal declaration number, and description. A unique sequential system generated disaster number will be assigned at this time that will be used to link the disaster to the actual project.</p> <p>Step 4: If required, information related to specific FHWA and FEMA disasters may also be defined.</p> <p>Step 3: Establish link between disaster and all related projects.</p>
1.2.5	Enter accounting distribution	The accounting distribution chart of account information for the project is entered. At this point, all set up information has been entered.	<p>Step 1: Enter accounting distribution information for the project. This information includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>○ Fund source,</li> <li>○ Program,</li> <li>○ Cost Center,</li> <li>○ Activity,</li> <li>○ Task,</li> <li>○ Building/Location, and</li> <li>○ Route.</li> </ul>
1.2.6	Open project for accounting transactions	Even when all set up information has been entered, the project may not be ready to have expenditures charged against it. Once the project is ready, this step is performed. The project is open for transactions until the end date is reached.	<p>Step 1: Enter start and end dates for when charges are allowed to post.</p> <p>Step 2: Open project for transactions (i.e. selecting an indicator or checkbox).</p> <p>Step 3: Indicate federal and/or state charges are allowed.</p> <p>Step 4: Enter project beginning and end dates.</p>

ID	Step	Process Details	
		Description	Detailed Steps
1.2.7	Close project	When the end date of the project is reached, the ERP system will not allow new charges; however, there may be reason to keep the project open for adjustments, corrections and special circumstances. Once it is determined that there should be no more charges against the project, it can be closed. Valid value checks will be performed at the point of entry of transactions related to projects to indicate whether a project id can be used for processing the transaction. If the project is closed, an error message should be displayed indicating the project id is not valid. Once the project is closed, charges are accumulated and a final bill is created. Reconciliation and billing adjustments are also performed during the close process.	Step 1: Search for existing record using the project identifier. Step 2: Close project.
Decision Point	Re-open project?	If there is a need to temporarily open the project, additional steps (described in 1.2.8) must occur.	
1.2.8	Re-open project	If there is a need to re-open the project (for example, an adjustment to an expenditure needs to be made), this step is performed.	Step 1: Search for existing record using the project identifier. Step 2: Re-open the project. Step 3: Close the project once the issue is resolved.
1.2.9	Generate and review reports	At any point after the project is open for accounting transactions, reports shall be created and analyzed as necessary.	Step 1: Create project-related reports after the project is opened for accounting transactions. Step 2: Review reports.

## 6.3 Transaction Processing

### Exhibit 6 – FM07 Cost Accounting – Transaction Processing

#### FM07-1.3: Transaction Processing



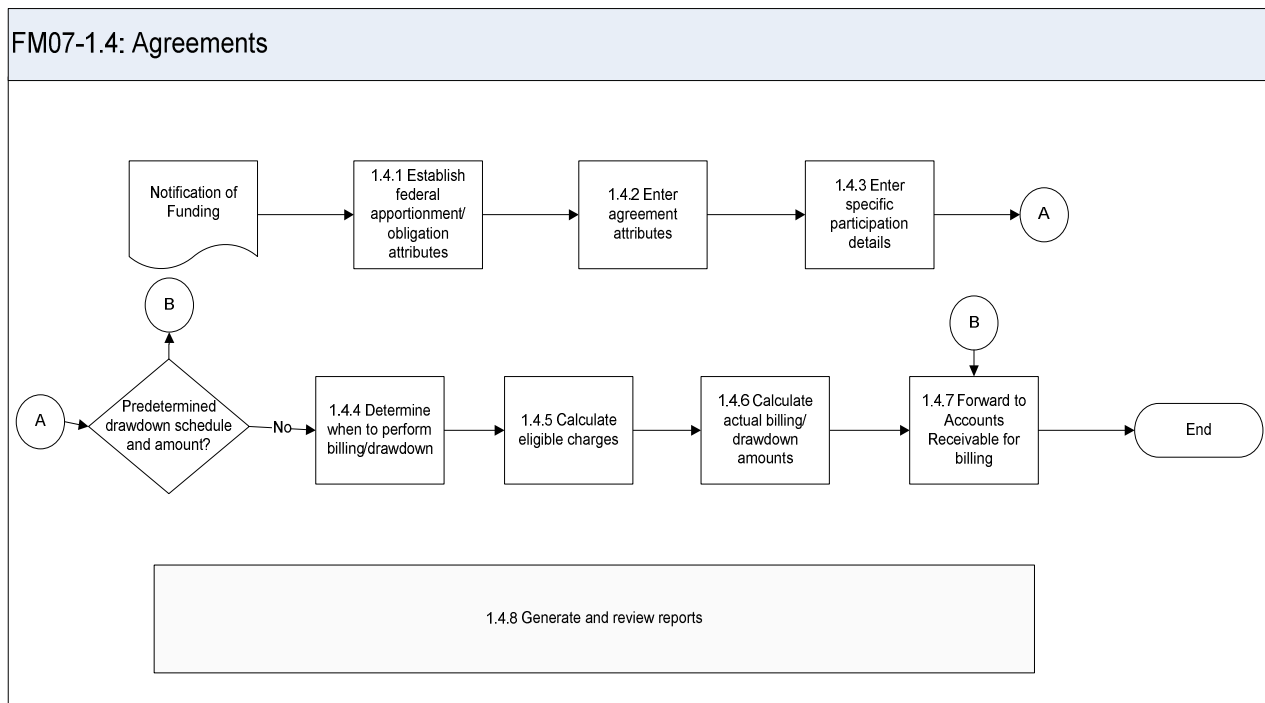
FM07-1.3 – Process Thread Description – Transaction Processing	
Process Description:	Transaction processing is the identification and coding of required attributes on grant and project related accounting transactions and the tracking of transactions against grant and project budgets.
Improvement Opportunities:	<ul style="list-style-type: none"> <li>Track more detailed information.</li> </ul>
Legal/Policy Reform Impacts:	None identified at this time.
Organization/People Impacts:	<ul style="list-style-type: none"> <li>Reduce staff time expended manually tracking project and grant expenditures.</li> <li>Training for agencies required on new web enabled system.</li> <li>New procedures are required for processing project and grant transactions.</li> </ul>
Assumptions:	<ul style="list-style-type: none"> <li>Adjustments to transactions will be performed either at the point of origin, or with correcting journal entries.</li> <li>Bill re-calculation and submission resulting from adjustments will occur as necessary.</li> <li>Cost Accounting will have access to all grant and project transactions.</li> </ul>
Access Methods:	<ul style="list-style-type: none"> <li>Web Browser.</li> </ul>
System Interfaces:	<ul style="list-style-type: none"> <li>Internal agency systems.</li> </ul>

		Process Details	
ID	Step	Description	Detailed Steps
1.3.1	Receive transactions	Transactions (expenditure transactions, time entry) are coded with the correct identifier for grant, project, phase, etc.	Step 1: Originating party codes identifier (for grant, project, phase, etc), along with other required elements for the accounting distribution, on the transaction.

		Process Details	
ID	Step	Description	Detailed Steps
Decision Point	Pre-determined split?	If a pre-defined split has been established during grant/project set up, additional steps must occur.	
1.3.2	Transaction is split into multiple journal entries	If the grant/project should be split to several accounting distributions, that is defined during set up. Once the transaction is entered and accepted, the transaction will split accordingly to multiple journal entries. The actual transaction split is performed by General Accounting.	Step 1: The system will perform any required splits as designated in the grant or project set up. Step 2: Separate journal entries are created for each split.
1.3.3	Report and track transactions	As expenditures are charged against the grant/project, the budget will be reduced by the amounts of the transactions.	Step 1: Check grant or project budgets online or run reports to show transaction activity and budget.
Decision Point	Correction required?	If a correction is required to posted transactions, additional steps (described in 1.3.4) must occur.	
1.3.4	Correct transactions	If there is an error with a transaction, it is corrected. Whenever possible, transactions will be corrected at the point of entry. Transactions that cannot be corrected at point of entry will be correct with journal entry transactions.	Step 1: Transaction error is corrected either at point of entry or with a journal voucher.

## 6.4 Agreements

### Exhibit 7 – FM07 Cost Accounting – Agreements



FM07-1.4 – Process Thread Description – Agreements	
Process Description:	The Agreements process thread addresses the establishment of grant drawdown and project billing and reimbursement parameters, the calculation of drawdown and billing amounts and the actual drawdown and billing processes.
Improvement Opportunities:	<ul style="list-style-type: none"> <li>The reimbursement and drawdown processes can be managed in the financial application.</li> </ul>
Legal/Policy Reform Impacts:	None identified at this time.
Organization/People Impacts:	<ul style="list-style-type: none"> <li>Reduce staff time expended manually tracking and calculating grant drawdowns and project billable amounts.</li> <li>Training for agencies required on new web enabled system.</li> <li>New procedures are required for establishing agreements and monitoring unbilled expenditures.</li> </ul>
Assumptions:	<ul style="list-style-type: none"> <li>This section will cover agreements for grant drawdown, and project billing.</li> <li>Cost Accounting will calculate the billable charges and drawdown amounts; Accounts Receivable will perform bill generation, distribution and funds receipt.</li> </ul>
Access Methods:	<ul style="list-style-type: none"> <li>Web Browser.</li> </ul>
System Interfaces:	<ul style="list-style-type: none"> <li>Systems of external federal agencies that are either billed for Commonwealth expenditures or are grantors for Commonwealth grants.</li> </ul>

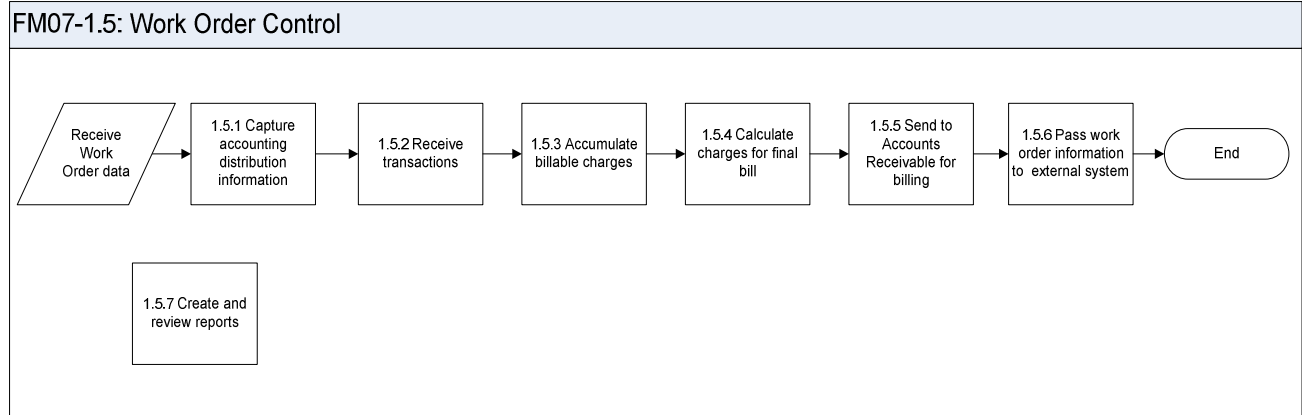
Process Details			
ID	Step	Description	Detailed Steps
External Step	Notification of funding	Agency notification of funds availability by the grantor is a step external to the ERP system.	
1.4.1	Establish federal apportionment/obligation attributes	Once the agency receives notification from the Federal Cognizant agency of the total amount of federal funds it will receive for the current federal fiscal year, the agency must enter the appropriate information within the ERP system. This will establish the valid values for appropriation and category codes as well as establish maximum billing limits.	Step 1: Enter Federal Apportionment and Obligation Authority amounts. Step 2: Enter allowable appropriation or category codes with appropriate descriptive information such as description, rate, lapse period, etc.
1.4.2	Enter agreement attributes	The agreement attributes (i.e. billing/drawdown frequency, vendor, etc.) are established in the ERP system.	Step 1: Establish agreement attributes including the associated grant/project, vendor (payee) information, etc. (if applicable) Step 2: For grants, establish appropriate drawdown schedules noting any advance payments. Step 3: For projects, establish billing parameters. Step 4: Enter accounting distribution elements (establishing accounting entry types and reasons), participation rates and obligation amounts.
1.4.3	Enter specific participation details	The agreement should be further defined to establish specific participation information related to the project or grant to ensure the system pulls appropriate charges when calculating billable amounts.	Step 1: Establish any specific participation details such as structure number, phases, accounts, activity or all project expenditures. Step 2: Enter participation cap dollar amounts, corresponding appropriation code, participation percent for appropriation code, obligation amount and other similar information.

Process Details			
ID	Step	Description	Detailed Steps
Decision Point	Pre-determined drawdown schedule and amount?	If a schedule for performing grant draw downs, and the amount of the draw downs, is pre-established, the drawdown is performed. If schedule/amount is not pre-established, additional steps (described in 1.4.4) must occur.	
1.4.4	Determine when to perform billing/drawdown	When there is no pre-established drawdown schedule with pre-established amounts, the agency will determine when it is time to bill for reimbursement or to drawdown money from the grant.	Step 1: Determine if a drawdown or billing needs to take place. Step 2: If a pre-determined schedule and amount exist, send drawdown amount to Accounts Receivable module for billing.
1.4.5	Calculate eligible charges	For grants, pre-established drawdown schedules will contain the amount and number of drawdowns.	Step 1: Review drawdown charges on drawdown schedule in the ERP system. Step 2: Make expenditure adjustments as needed.
1.4.6	Calculate actual billing/drawdown amounts	Actual charges are the amount to be billed to the federal agency and/or non-federal third parties (to be reimbursed) or the amount to be drawn from the grant.	Step 1: Based on billing/drawdown parameters, the ERP system will calculate the amount to be billed or drawn down.
1.4.7	Forward to Accounts Receivable for billing	The actual charges are sent to the Accounts Receivable module of the ERP system, where the bill is generated and sent. Confirmation of funds receipt is sent from Accounts Receivable to the Cost Accounting module.	Step 1: Send the actual billing/drawdown amounts to the Accounts Receivable module, where the bill is created and sent. Step 2: The Accounts Receivable module sends funds receipt data and information to the Cost Accounting module.
1.4.8	Generate and review reports	Reports shall be created and analyzed as necessary.	Step 1: Create agreement-related reports. Step 2: Review reports.



## 6.5 Work Order Control

### Exhibit 8 – FM07 Cost Accounting – Work Order Control



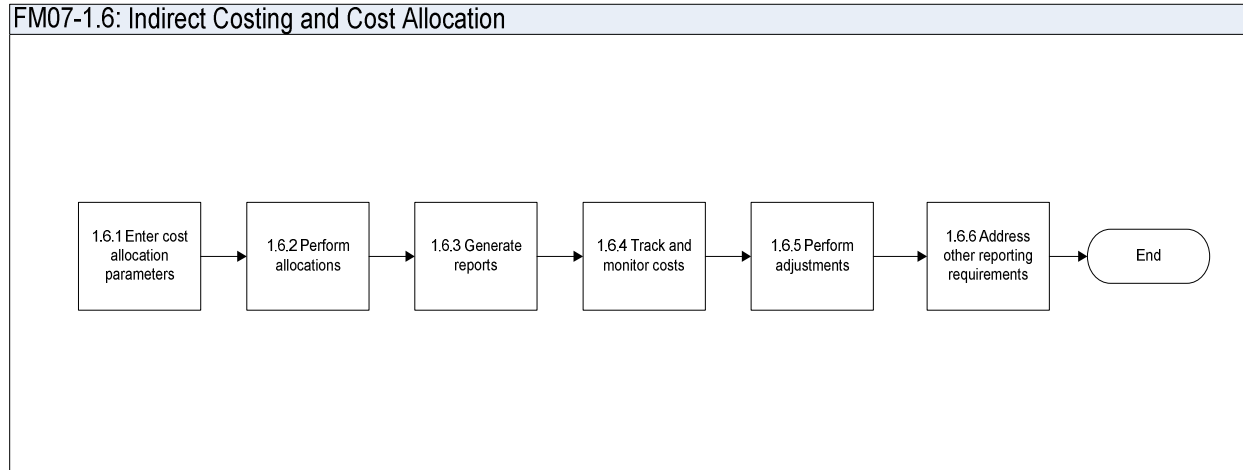
FM07-1.5 – Process Thread Description – Work Order Control	
Process Description:	Work orders are mechanisms for accumulating related expenditures and other costs for some specific purpose, often short in duration. Work Order Control is the establishment, processing and billing of work order transactions.
Improvement Opportunities:	None identified at this time.
Legal/Policy Reform Impacts:	None identified at this time.
Organization/People Impacts:	<ul style="list-style-type: none"> <li>Reduce staff time expended manually tracking and calculating work order expenditures and billings.</li> <li>Training for agencies required on new web enabled system.</li> </ul>
Assumptions:	<ul style="list-style-type: none"> <li>Work orders will not be created in the ERP system. All work orders will be created in systems external to the ERP system.</li> <li>Agencies that do not have access to external work order systems can use projects in the ERP system.</li> <li>Accounting transactions and time entry are coded with the correct work order and other chart of account identifiers.</li> <li>Adjustments/corrections will be made by the originating party.</li> </ul>
Access Methods:	<ul style="list-style-type: none"> <li>Web Browser.</li> </ul>
System Interfaces:	<ul style="list-style-type: none"> <li>Any external system (i.e. agency equipment management and facilities management systems) that creates work orders will have to interface with the ERP system.</li> </ul>

		Process	Details
ID	Step	Description	Detailed Steps
External Step	Create work order in external system	All work orders will be created in external systems that are separate from the ERP system.	Step 1: Create work order in external system.
1.5.1	Capture accounting distribution information	Accounting distribution elements associated with the work order are entered into the ERP system.	Step 1: Establish work order accounting distribution information in the ERP system.

ID	Step	Process	Details
		Description	Detailed Steps
1.5.2	Receive transactions	Work order identifier, along with all other required chart of account elements are coded on transaction. (Any errors in coding will be corrected by the originating party).	Step 1: Transaction is created – originating party codes work order identifier along with other required elements for the accounting distribution.
1.5.3	Accumulate billable charges	While the work order remains open, all charges (expenditures, labor, etc.) are accumulated for billing.	Step 1: ERP system accumulates charges for billing from all transactions.
1.5.4	Calculate charges for final bill	If applicable, once the work order is closed, the final bill is calculated.	Step 1: Work order is closed, either manually or by close date established during set up. Step 2: Final charges are calculated.
1.5.5	Send to Accounts Receivable for billing	The final charges are sent to the accounts receivable module of the ERP system, where the bill is generated and sent.	Step 1: The final billing/drawdown amounts are sent to the Accounts Receivable module of the ERP system, where the bill is created and sent.
1.5.6	Pass work order information to external system	Work order information, such as expenditure data is passed from the ERP system to the originating system.	Step 1: Work order data is interfaced from the ERP system to the originating, external system.
1.5.7	Create and review reports	At any point after the work order is created, reports shall be created and analyzed as necessary.	Step 1: Create work order related reports after the work order as needed. Step 2: Review reports.

## 6.6 Indirect Costing and Cost Allocation

### Exhibit 9 – FM07 Cost Accounting – Indirect Costing and Cost Allocation



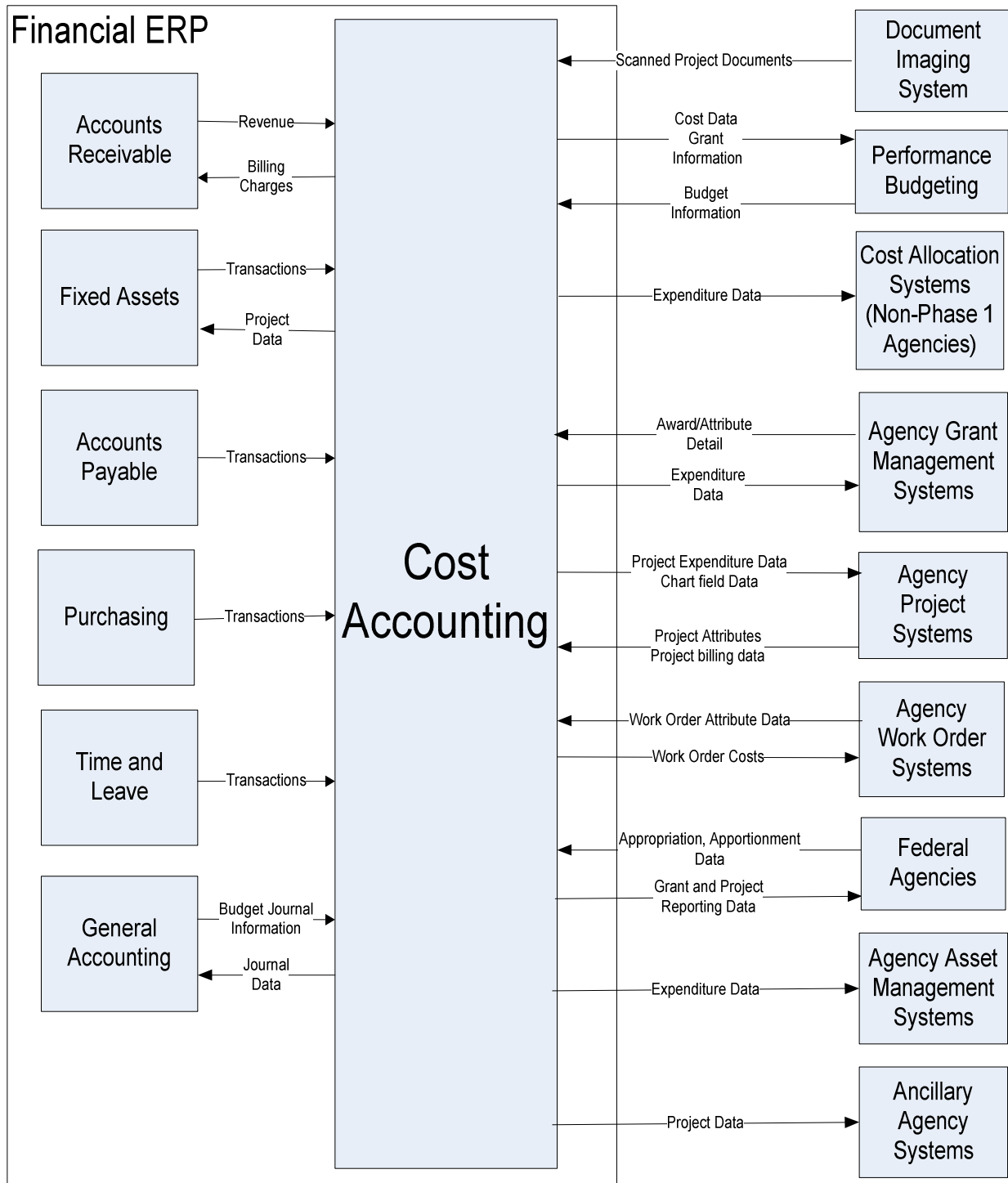
FM07-1.6 – Process Thread Description – Indirect Costing and Cost Allocation	
Process Description:	Indirect Costing and Cost Allocation include the identification, calculation and distribution of both direct and indirect costs associated with grants, projects and work orders.
Improvement Opportunities:	<ul style="list-style-type: none"> <li>The ability to perform cost allocation calculations would exist in the enterprise application and could reduce the amount of manual processing (i.e. Excel spreadsheets) or other systems used to perform this functionality.</li> </ul>
Legal/Policy Reform Impacts:	None identified at this time.
Organization/People Impacts:	<ul style="list-style-type: none"> <li>Reduce staff time expended manually tracking and calculating indirect cost allocations.</li> <li>Training for agencies required on new web enabled system.</li> <li>New procedures are required for establishing cost allocations and monitoring cost distributions.</li> </ul>
Assumptions:	<ul style="list-style-type: none"> <li>The ERP system will provide financial transaction data and perform the cost allocation calculations that are used in cost allocation plans or rate proposals. There may be other data or steps required for a cost allocation plan or rate proposal that are performed outside of the ERP system.</li> <li>Editing, correction and posting of accounting transactions created from the allocation process will be done by the general accounting functionality of the ERP system.</li> </ul>
Access Methods:	<ul style="list-style-type: none"> <li>Web Browser</li> </ul>
System Interfaces:	None identified at this time.

Process Details			
ID	Step	Description	Detailed Steps
1.6.1	Enter cost allocation parameters	The cost allocation parameters are the attributes for the allocations (i.e. what is being allocated and to where the allocations are going) that will be defined in the ERP system. If a trial run of the allocation is desired, this is performed at this point.	Step 1: Define cost allocation parameters including pool, base and target set up and allocation rates. Step 2: Define and review allowable and non-allowable costs. Step 3: Run trial cost allocation routines in the ERP system. Step 4: Run cost allocation reports to review trial allocation results. Step 5: Adjust cost allocation parameters as necessary.
1.6.2	Perform allocations	The cost allocation calculations are generated through an ERP system routine. Journal entries resulting from the allocation routine are created here if necessary.	Step 1: Run cost allocation routines in the ERP system. Step 2: Accounting journal entries are created from the allocations.
1.6.3	Generate reports	Reports needed to view the results of the cost allocation routines are created here. Examples include: reports to view calculated rates and reports to view the parameters that were established for the allocations.	Step 1: Run cost allocation reports to review allocation results.
1.6.4	Track and monitor costs	Agencies review and monitor direct and indirect cost allocations throughout the year.	Step 1: Run reports to monitor indirect costs during the fiscal year.
1.6.5	Perform adjustments	Adjustments are made throughout the year as necessary.	Step 1: Adjust cost allocation parameters as necessary. Step 2: Re-run cost allocation routines as necessary.
1.6.6	Address other reporting requirements	Agencies will have the ability to generate additional reports that can be used to prepare reports for other state agencies or external entities. In some cases, additional processes may need to be performed in order to prepare a complete version of documents for external submissions such as the SICAP or Agency Indirect Cost Plans, for example.	Step 1: Create and run reports. Step 2: Create Commonwealth management reports.

## **7. Data Flow Details**

This section details the flows of data both in and out of the business process. This will assist in identifying the impact to existing systems and processes, as it relates to each agency in the Commonwealth.

**Exhibit 11 – FM07 Cost Accounting – Data Flow Diagram**



<b>Data Flow Details</b>			
<b>Entity</b>	<b>Flow</b>	<b>Data Name</b>	<b>Description</b>
Cost Allocation Systems (Non-Phase 1 Agencies)	Out	Expenditure Data	External cost allocation systems will need to extract expenditure data from the ERP system for cost allocation calculations.
Agency Grant Management Systems	In	Attribute/Award Detail	Attribute and award detail about grants will need to be sent to the ERP system from external grant management systems.
Agency Grant Management Systems	Out	Expenditure Data	Grant and sub grant expenditure data that is entered directly into external systems (i.e. sub-grant expenditure data entered directly into external systems by sub-grantees) will need to be sent to the ERP system. (OMEGA)
Agency Project Systems	Out	Project Expenditure Data	Project Expenditure data sent to external project systems (i.e. iSYP, iPM, PCES, Trns.port/Site Manager, Airport IQ.).
Agency Project Systems	Out	Chart field Data	Valid Chart Field Configuration data is sent to SiteManager.
Agency Project Systems	In	Project Billing information	Project billing participation details are received from external project systems (Trns.port/SiteManager, Airport IQ.).

<b>Data Flow Details</b>			
<b>Entity</b>	<b>Flow</b>	<b>Data Name</b>	<b>Description</b>
Agency Work Order Systems	In	Work Order Attributes	Some agencies maintain outside facilities/equipment management systems (e.g. EMS for VDOT and FMS for DGS) that, in addition to other non-ERP functions, also create work orders. These systems will need to interface with the ERP solution to provide work order attribute data (i.e. work order accounting distribution, work order type, customer, billing data, work order number).
Agency Work Order Systems	Out	Work Order Costs	Work order charges shall be accumulated in the ERP system until the work order closes. The work order expenditures and billing data shall be sent to the agency external work order systems.
Federal Agencies	In	Appropriation, Apportionment Data	Appropriation and apportionment data shall be sent from systems of cognizant federal agencies to the ERP system.
Federal Agencies	Out	Grant and Project Reporting data.	Some Commonwealth agencies must meet federal reporting requirements. Users in these agencies shall use the reporting tool to create and automatically submit federal reports to the appropriate cognizant agency.
Agency Imaging System	In	Scanned Project and Grant related documents	Agencies will need to have online, real time access to images of documents such as project and grant documentation stored in an imaging system.



Data Flow Details			
Entity	Flow	Data Name	Description
Agency Asset Management System	Out	Grant/Project Expenditure data	Grant and Project related expenditure data sent to Agency Asset Management Systems (AMS).
Performance Budgeting System	Out	Cost and Grant Data	Agency grant information and cost data sent to Performance Budgeting System.
Performance Budgeting System	In	Project/Grant Budget Data	The system will need to accept Project and Grant budget data received from external Performance Budgeting System.
Ancillary Agency Systems	Out	Project data	Project data will need to be sent to VDOT Data Repository/Reporting systems.

## 8. References

### 8.1 Information Sources

The documents that have been used as references to the *Financial Management – Cost Accounting* business process are as follows:

- Enterprise Business Architecture (EBA) Line of Business 438 Financial Management
- Virginia Enterprise Applications Architecture Initiative Section 3 Financial Management
- Due Diligence Deliverable Financial Management
  - Financial Management Multiple Choice Responses
  - Financial Management Selected Text Responses
  - Financial Management Tower Summary
- Due Diligence Deliverable Administrative Management
  - Administrative Management Multiple Choice Responses
  - Administrative Management Selected Text Responses
  - Administrative Management Tower Summary
- State Requirements from Ohio, Tennessee and Iowa
- Virginia Department of Transportation (VDOT) Financial Management System (FMS) Upgrade project requirements
- Commonwealth Accounting Policies and Procedures (CAPP) Topics:
  - 20310 – Expenditures
  - 20605 – Federal Grants Management
  - 20705 – Indirect Cost Recovery
  - 60101 – Chart of Accounts
  - 60103 – Transaction Codes

- 60105 – Cost Codes
- 60108 – Expenditure Codes
- 60110 – Project Codes
- 60112 – Table Maintenance
- 70230 – Data Entry
- 70245 – Balance Screen Inquiry
- Appropriation Act
  - § 4-4.01
  - § 4-1.05 (b3)
  - § 4-2.01(a)
  - § 4-2.03
- Cash Management Improvement Act of 1990
- Office of Management and Budget (OMB) Circulars:
  - A-21 – Cost Principles for Educational Institutions
  - A-87 – Cost Principles for State, Local and Indian Tribal Governments
  - A-102 – Grants and Cooperative Agreements With State and Local Governments
  - A-110 – Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations

## 8.2 Definitions, Acronyms and Abbreviations




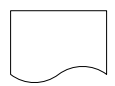
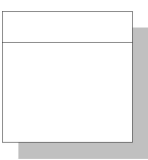

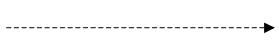



The terms defined for the *Financial Management – Cost Accounting* Future State Environment document are as follows:

Term	Definition
Agency Indirect Cost	Indirect cost incurred by a Commonwealth agency.
APA	Auditor of Public Accounts
BPR	Business Process Re-engineering
CAFR	Comprehensive Annual Financial Report
CAPP	Commonwealth Accounting Policies and Procedures
CAPPS	Cost Allocation Planning and Performing Services
CARS	Commonwealth Accounting and Reporting System
Central Services Agency	State agency rendering support services to other state agencies in the Commonwealth.
CFDA	Catalog of Federal Domestic Assistance
CIPPS	Commonwealth Integrated Payroll Personnel System
CMAQ	Congestion Mitigation Air Quality funds
CMIA	Cash Management Improvement Act (of 1990) – provides the general rules and procedures for the use of state and federal funds on behalf of federal assistance programs.
Cognizant Agency	Federal agency responsible for reviewing, negotiating and approving a specific state agency or institution's cost allocation plan or indirect cost rate proposal.
COTS	Commercial off the Shelf
DCJS	Department of Criminal Justice Services


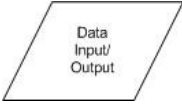
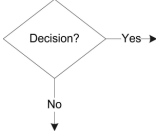


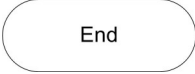
Term	Definition
DGS	Department of General Services
Direct Cost	Expenditure identified to a singular cost objective
DOA	Department of Accounts
DOAV	Department of Aviation
DOC	Department of Corrections
DPB	Department of Planning and Budget
Drawdown	Entity (i.e. Commonwealth agency) request and receipt of federal funds
EBA	Enterprise Business Architecture
eGrants	Federal online grants management system
EMS	Equipment Management System
ERP	Enterprise Resource Planning
FAACS	Fixed Asset Accounting and Control System
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Financial Management
FMS	Facilities Management System (DGS)
FMSII	Financial Management System II (VDOT)
Grant	Award of financial assistance to an eligible grantee.
Grantee	Direct recipient of a grant that is accountable for the use of the funds received.
Grantor	Entity that awards a grant to an eligible grantee.
Indirect Cost	Expenditure incurred for a joint purpose that benefits more than one cost objective. Could be incurred by an agency or by a central agency on behalf of other Commonwealth agencies.
Indirect Cost Recovery	Funds received for indirect costs that are reimbursed.
iPM	Integrated Project Management system
iSYP	Integrated Six Year Program system
IM	Interstate Maintenance funds
OAG	Office of the Attorney General
OMB	Office of Management and Budget
OMEGA	Online Management of Education Grant Awards
Pass Through Funds	Funds received by a Commonwealth agency or institution for subsequent transfer to other Commonwealth agencies or institutions to carry out the program purpose.
PCES	Project Cost Estimating system
PROBUD	The Commonwealth budget development system

Term	Definition
Project	A task or series of related tasks, performed by a Commonwealth agency, that last for a pre-determined duration. Projects may be standalone or may be linked to grants.
ROW	Right of Way
SCHEV	State Council of Higher Education for Virginia
SESA	State Employment Security Agency
SICAP	Statewide Indirect Cost Allocation Plan
Site Manager	Current system used by VDOT to accumulate charges for the Construction Phase of projects.
SME	Subject Matter Expert
SPR	State Planning and Research funds
Statewide Indirect Cost	Indirect cost incurred by a central service agency. Statewide Indirect costs are calculated in the Federal SICAP and are provided to agencies by DOA.
STP	Surface Transportation Program funds
Subgrant	Award of financial assistance made under a grant by a grantee to an eligible subgrantee.
Subgrantee	Entity to which a subgrant is awarded and which is accountable to the grantee for the use of the provided funds.
VDOT	Virginia Department of Transportation
VEAA	Virginia Enterprise Application Architecture
VEAP	Virginia Enterprise Applications Program
VEC	Virginia Employment Commission
Vendor	Any business, individual or agency receiving payment from the Commonwealth.
VITA	Virginia Information Technology Agency
VMFA	Virginia Museum of Fine Arts
VSDBS	Virginia School for the Deaf and Blind, Stanton
Work Order	A task, performed by a Commonwealth agency that is usually short in duration and scope.


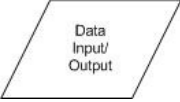
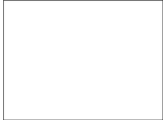
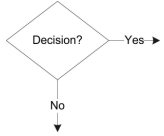


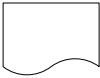

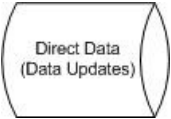
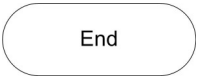
The definitions of the shapes used in the diagrams in Section 2 of the *Financial Management – Cost Accounting* Future State Environment document are as follows:

Diagram Shape	Definition
	Server symbol represents a server or feeder system transmitting data to or receiving from the main system.
	Main System represents mainframes or the future ERP solution.
	User/Manual interaction symbol.
	Paper document symbol.
	Application symbol.
	Required function symbol.
	Optional function symbol.
	Use the group box symbol around multiple symbols to simplify and/or emphasize functions specific to a group i.e. in-scope/out-of-scope agencies.
	Connector symbol is used to avoid crossing of lines and maintain flow going from left to right.
	Agency symbol is used to represent internal/external agencies or organizations involved in the process. It is unknown at this time if a system exists.



The definitions of the shapes used in the diagrams in Section 5 of the *Financial Management – Cost Accounting* Future State Environment document are as follows:

Diagram Shape	Definition
	Pre-defined Process symbol is used to represent the defined process threads.
	Data input/output symbol represents incoming or outgoing data.
	Decision symbol is used when the process requires a decision to proceed.
	Directional Arrow symbol is used to reflect flow from one symbol to the next.
	Connector symbol is used to avoid crossing of lines and maintain flow going from left to right.
	End Symbol is used to end the process.

The definitions of the shapes used in the diagrams in Section 6 of the *Financial Management – Cost Accounting* Future State Environment document are as follows:

Diagram Shape	Definition
	Pre-defined Process symbol is used to represent the defined process threads.
	Data input/output symbol represents incoming or outgoing data.
	Process symbol is used to represent the process thread steps.
	Decision symbol is used when the process requires a decision to proceed.
	Directional Arrow symbol is used to reflect flow from one symbol to the next.
	Connector symbol is used to avoid crossing of lines and maintain flow going from left to right.
	Paper document symbol.
	Manual Operation symbol.
	Direct Data updates symbol.
	End Symbol is used to end the process.

The definitions of the shapes used in the diagrams in Section 7 of the *Financial Management – Cost Accounting* Future State Environment document are as follows:

Diagram Shape	Definition
	Entity symbol outside of the ERP represent external system interfaces. Entity symbol inside of the ERP represent interaction between internal modules.
	Directional Arrow symbol is used to reflect flow from one symbol to the next.



## **Appendix A – Product Requirements – Reference RFP Section 5**